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July 21, 2010

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CONNECTICUT
SITING COUNCIL

Mr. S. Derek Phelps
Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: Docket No. F-10 - Connecticut Siting Council Review of 2010 Forecasts of Electric Loads and Resources

Dear Mr. Phelps:

This letter provides the response to requests for the information listed below.

Response to CSC-01 Interrogatories dated 06/30/2010
CSC-001, 002, 003, 004, 005, 006

Very truly yours,

Christopher Bernard
Manager
Regulatory Policy - Transmission
NUSCO
As Agent for CL&P

cc: Service List

The Connecticut Light and Power Company
Docket No. F-10

Data Request CSC-01
Dated: 06/30/2010
Q-CSC-001
Page 1 of 1

Witness: Robin E. Lewis
Request from: Connecticut Siting Council

Question:

On page 10 of The Connecticut Light and Power Company's 2010 Forecast (CL&P Forecast), the 50/50 forecast is provided along with load factors. The load factors appear to decline over the forecast period. Is this because the peak load is growing at a faster rate than the energy output? Explain.

Response:

Yes. Load factors are forecasted to decline because peak load is expected to grow faster than energy output. There are two primary reasons for this: 1) residential air conditioning saturations continue to increase, because virtually all new homes are built with air conditioning, and 2) customers may reduce their air conditioning usage on moderately hot days to save money or to reduce their carbon footprint, which reduces energy output, but on very hot days they are more likely to use air conditioning despite these concerns, which increases peak load.

The Connecticut Light and Power Company
Docket No. F-10

Data Request CSC-01
Dated: 06/30/2010
Q-CSC-002
Page 1 of 1

Witness: Robin E. Lewis, David J. Bebrin
Request from: Connecticut Siting Council

Question:

On page 11 of the CL&P Forecast, there are no gigawatt-hours (GWh) reported from ISO-NE's Load Response Program (ISOLRP). Is this because the limited number of hours that the ISOLRP is in use results in a negligible energy savings in GWh? Explain.

Response:

Yes. In the forecast, CL&P assumed that customers who are in the ISOLRP will only be called to curtail load a few times each year so the impact on energy output is minimal.

Witness: Robin E. Lewis
Request from: Connecticut Siting Council

Question:

On page 11 of the CL&P Forecast, the Net Electrical Energy Output Requirements are listed. Are these based on the 50/50 forecast scenario? If yes, provide a similar table based on the Extreme Hot Weather Scenario.

Response:

Yes, the Net Electrical Energy Output Requirements ("Energy") are based on the 50/50 forecast. The Extreme Hot Weather Scenario is based on the single hottest peak day that has occurred during the more than 50 years that CL&P has been collecting weather data. CL&P does not currently have an Extreme Hot Weather Scenario for Energy. To construct one, a definition of extreme hot weather, as it pertains to Energy, would have to be determined. There are at least three ways that this could be defined:

- 1) Choose the hottest day from historical data for each individual day in the summer.
- 2) Choose the hottest month from historical data for each individual month in the summer.
- 3) Choose the hottest summer season from historical data.

There would be several variations on the above, depending on how the winter and shoulder months are treated and what dates to consider as part of the cooling season. While Option 1 would produce the highest energy forecast, it has an extremely low probability of occurrence, and would be the most difficult to compute. Thus, Option 1 has not been computed. Option 2 would be more likely to occur and would produce a lower energy forecast. Option 3 would be the most likely to occur and would produce the lowest energy forecast. Page 2 of 2 shows the results for options 2 and 3.

Adjustments to Output based on Extreme Hot Weather Scenarios

Option 3 - Extreme Hot Weather Scenario By Season

<u>Year</u>	<u>Unadjusted</u> <u>Output</u> GWH	<u>Distributed</u> <u>Generation</u> GWH	<u>Company</u> <u>Sponsored</u> <u>C&LM</u> GWH	<u>ISO-NE</u> <u>Load</u> <u>Response</u> GWH	<u>Adjusted</u> <u>Output</u> GWH	<u>Annual</u> <u>Change</u> (%)
HISTORY NORMALIZED FOR WEATHER						
2009					23,735	
FORECAST						
2010	24,553	(404)	(98)	-	24,051	1.3%
2011	24,888	(483)	(385)	-	24,021	-0.1%
2012	25,345	(485)	(647)	-	24,213	0.8%
2013	25,686	(485)	(883)	-	24,318	0.4%
2014	25,952	(485)	(1,104)	-	24,364	0.2%
2015	26,230	(485)	(1,315)	-	24,431	0.3%
2016	26,573	(485)	(1,519)	-	24,570	0.6%
2017	26,799	(485)	(1,716)	-	24,598	0.1%
2018	27,083	(485)	(1,902)	-	24,697	0.4%
2019	27,368	(485)	(2,083)	-	24,800	0.4%
Compound Rates of Growth (2009-2019)						
	1.4%				0.4%	

Option 2 - Extreme Hot Weather Scenario By Month

<u>Year</u>	<u>Unadjusted</u> <u>Output</u> GWH	<u>Distributed</u> <u>Generation</u> GWH	<u>Company</u> <u>Sponsored</u> <u>C&LM</u> GWH	<u>ISO-NE</u> <u>Load</u> <u>Response</u> GWH	<u>Adjusted</u> <u>Output</u> GWH	<u>Annual</u> <u>Change</u> (%)
HISTORY NORMALIZED FOR WEATHER						
2009					23,735	
FORECAST						
2010	25,339	(404)	(98)	-	24,836	4.6%
2011	25,694	(483)	(385)	-	24,826	0.0%
2012	26,172	(485)	(647)	-	25,041	0.9%
2013	26,537	(485)	(883)	-	25,169	0.5%
2014	26,823	(485)	(1,104)	-	25,234	0.3%
2015	27,120	(485)	(1,315)	-	25,321	0.3%
2016	27,483	(485)	(1,519)	-	25,479	0.6%
2017	27,730	(485)	(1,716)	-	25,529	0.2%
2018	28,034	(485)	(1,902)	-	25,648	0.5%
2019	28,340	(485)	(2,083)	-	25,772	0.5%
Compound Rates of Growth (2009-2019)						
	1.8%				0.8%	

1. Sales plus losses and company use.

Witness: David A. Ferrante, Robin E. Lewis
Request from: Connecticut Siting Council

Question:

Provide the basic underlying assumptions associated with the distributed generation (DG) included in Table 2-2 of the CL&P Forecast, including but not limited to the DG projects approved, number of megawatts of each DG project, the number of units expected to go into service or the assumed probability that it will go into service, etc.

Response:

The forecast of Distributed Generation (DG) in Table 2-2 is comprised of 1) DG projects that were forecast at 100% of their MW capacity, because they were either in service at the time or were expected to be in service soon after, and 2) DG projects that were forecast at less than 100% of their MW capacity, because their estimated in-service dates were further into the forecast period. There are 39 projects in the first group with an aggregate of 75.384 MWs, which are shown on page 2 of 3. There are 18 projects in the second group in varying degrees of development that account for an additional 13.889 MWs of DG capacity and are shown on page 3 of 3.

The Kimberly Clark DG unit has a capacity higher than their own demand. The peak load forecast presented in CL&P's FLR represents the peak load demand of its own customers. Thus, the DG forecast presented in Table 2-2 of the CL&P Forecast excludes the additional load that Kimberly Clark supplies to the grid over and above its own demand.

The DG that is presented in Table 2.2 reflects the projected load reduction at the time of the system peak, and thus, is lower than the sum of the non coincident probability weighted capacity of the projects shown on pages 2 and 3.

Projects Forecast at 100% OF Capacity	
Project Name	MW
Bradley Home- Cogen	0.074
Branford High School	0.240
Cabela's Retail Inc.	0.800
Cellu-Tissue	2.920
City of Danbury - High School	0.072
City Of Middletown - New High School (2)	0.200
Duncaster Inc (1)	0.148
Duncaster Inc (2)	0.148
Duncaster Inc (3) Aquatic Center	0.074
East Hartford Public Schools	0.240
Elim Park Baptist Home Inc.	0.074
Executive Square (Winn Properties)	0.074
Flanagan Industries (1)	0.640
Flanagan Industries (2)	0.157
Frito Lay Inc	3.772
Greenwich Hospital	0.280
International Skating Center Of Conn LLC	0.134
Jerome Home	0.074
Kimberly Clark	33.485
Mashantucket MPTN/Foxwoods	15.000
Mashantucket Pequot Tribal Center	0.074
Northwestern Connecticut YMCA	0.049
Norwalk High School (City Of Norwalk)	0.250
Pepperidge Farm (1)	1.198
Plainville Electric Products Co.	0.375
Pratt & Whitney (UTC) (1)	7.520
Pratt & Whitney (UTC) (3)	2.100
Saint Mary Home	0.075
Sheffield Laboratories (1)	0.250
Sheffield Laboratories (2)	0.325
Smithfield Gardens (Sha Corp)	0.074
Southington Care Center	0.074
United Technologies - CSC Data Center	1.170
Wesleyan University	2.366
West Hartford Health & Rehabilitation (Brookview Corp)	0.074
Westover School	0.068
Whole Foods Market	0.200
Windham Community Memorial Hospital-Boil	0.390
Windham Public Schools (High School)	0.148
Total MW'S	75.384

Projects Forecast at <100% of Capacity			
Project Number	Estimated in-service	Probability	Estimated MW
1	Sep-09	90%	0.067
2	Sep-09	90%	0.064
3	May-09	80%	0.060
4	Jun-10	75%	3.893
5	Nov-09	75%	2.633
6	Sep-09	50%	2.059
7	Dec-09	50%	0.050
8	Jun-10	25%	3.550
9	Jan-11	25%	0.625
10	Jul-10	20%	0.407
11	Jun-12	10%	0.010
12	Sep-09	10%	0.030
13	Aug-10	10%	0.122
14	Jul-10	10%	0.008
15	Mar-10	10%	0.008
16	Mar-10	10%	0.008
17	Jun-12	10%	0.150
18	Jun-12	10%	0.150
			<u>13.889</u>

The Connecticut Light and Power Company
Docket No. F-10

Data Request CSC-01
Dated: 06/30/2010
Q-CSC-005
Page 1 of 1

Witness: David J. Bebrin
Request from: Connecticut Siting Council

Question:

In the context of the Conservation and Load Management Program (C&LM Program), explain the difference between passive and active resources.

Response:

Active resources are dispatchable resources (demand response and some distributed generation) that must respond during shortage events. For example, resources entered into the ISO Demand Response Program are active resources because they are called to perform only for specific shortage events.

Passive resources are non-dispatchable resources (energy efficiency, plus a small amount of distributed generation) that reduce load during pre-defined hours and periods. Most C&LM measures are passive because they reduce load across a pre-defined operating period. For example, energy efficient lighting will reduce load whenever lights are on throughout the year.

The Connecticut Light and Power Company
Docket No. F-10

Data Request CSC-01
Dated: 06/30/2010
Q-CSC-006
Page 1 of 1

Witness: David J. Bebrin
Request from: Connecticut Siting Council

Question:
Is CL&P's C&LM Program limited to passive resources?

Response:
No. CL&P's C&LM programs have both "passive" and "active" resources. C&LM's Energy Efficiency resources are defined as passive. CL&P's C&LM Demand Response Resources (Real Time Emergency Generation and Real Time Demand Response) are defined as active.